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Vishay Dale

AUTOMOTIVE GRADE

RoHS

COMPLIANT

HALOGEN FREE

**GREEN** 

<u>(5-2008)</u>

# Low Profile, High Current IHLP® Inductors



Manufactured under one or more of the following: **US Patents**; **6,198,375/6,204,744/6,449,829/6,460,244.** Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS					
L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>	SFR TYP. (MHz)
0.22	1.57	1.68	30.7	34.0	126
0.33	2.00	2.14	29.5	36.0	97
0.47	2.45	2.62	25.0	31.5	74
0.68	3.43	3.67	21.0	24.5	59
0.82	4.13	4.42	19.0	24.2	53
1.0	5.40	5.78	18.0	24.0	42
2.2	12.80	13.70	10.5	23.0	33
3.3	16.50	17.70	9.2	20.0	25
4.7	29.90	32.00	7.5	18.7	19
5.6	33.20	35.50	6.8	16.7	18
6.8	44.60	47.70	5.7	15.2	15
8.2	47.50	50.80	5.5	10.0	17
10.0	56.00	59.90	5.2	9.0	15

#### Notes

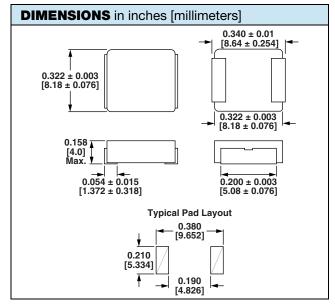
- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range 55 °C to + 125 °C
- $^{(3)}$  DC current (A) that will cause an approximate  $\Delta T$  of 40  $^{\circ}$ C
- $^{(4)}$  DC current (A) that will cause  $L_0$  to drop approximately 20 %
- (5) The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

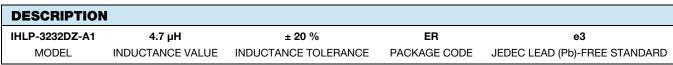
#### **FEATURES**

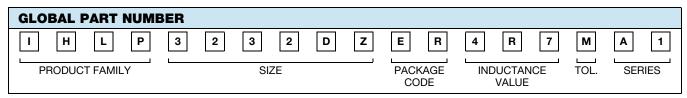
- Shielded construction
- Excellent DC/DC energy storage up to 5 MHz.
  Filter inductor applicatuions up to SFR (see table below)
- Operating temperature up to 125 °C
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- Material categorization: For definitions of compliance please see <a href="https://www.vishav.com/doc?99912"><u>www.vishav.com/doc?99912</u></a>

#### **APPLICATIONS**

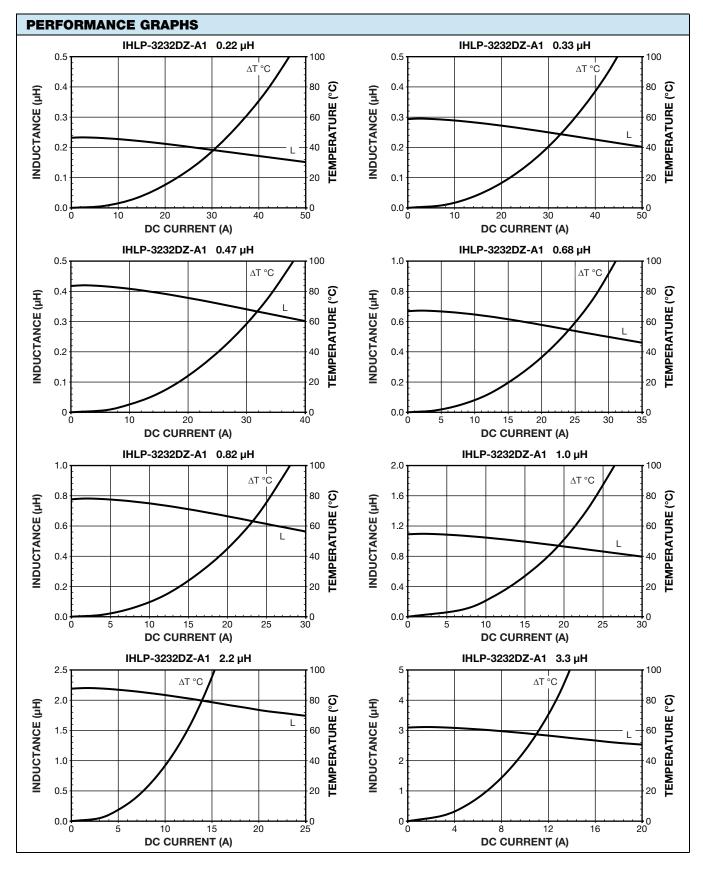
- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors
  - Windshield wipers
  - Power seats
  - Power mirrors
  - Heating and ventilation blowers
  - HID lighting
- LED drivers



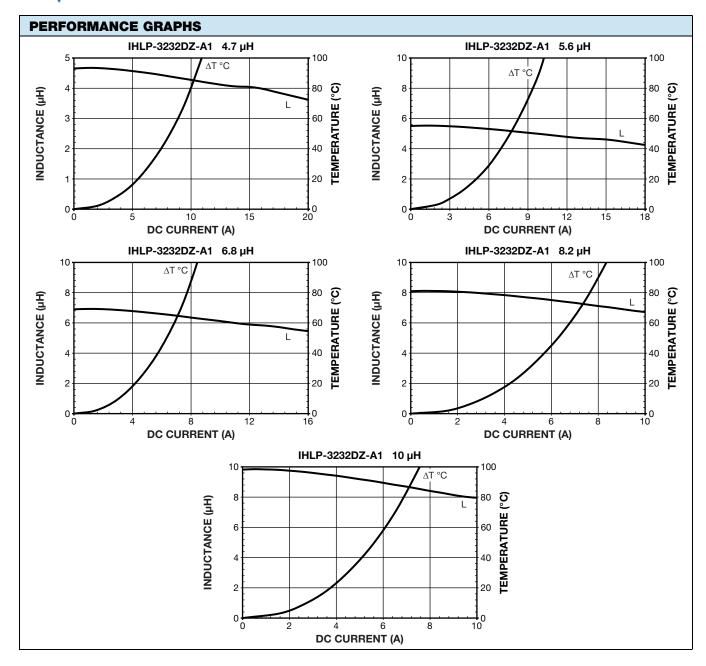




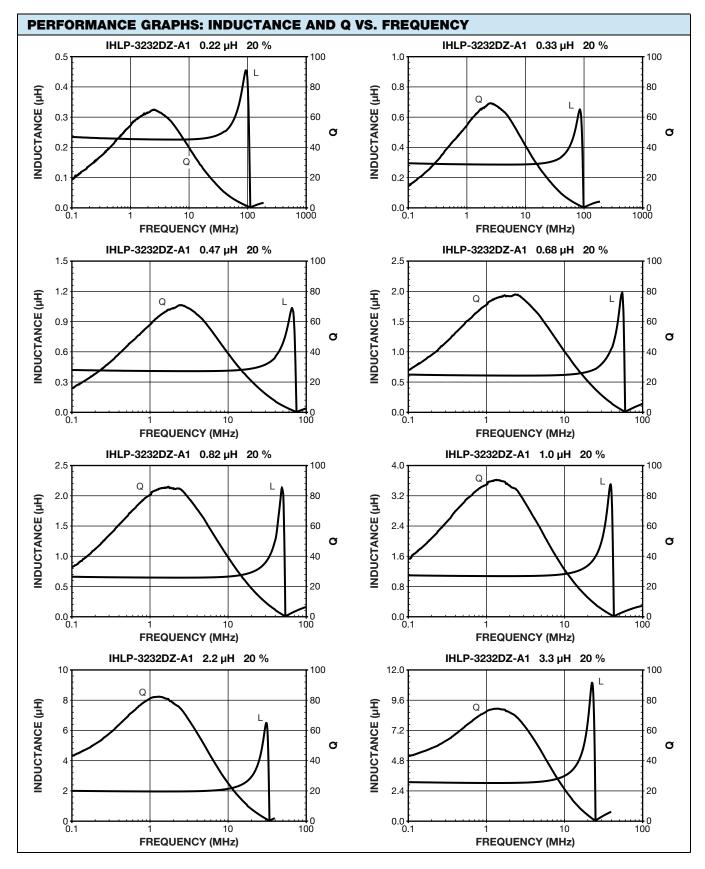




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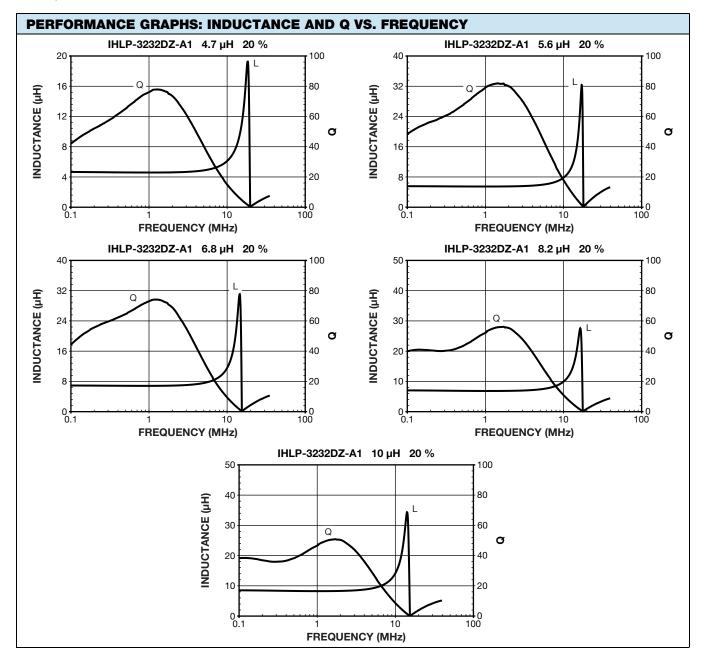








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Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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Revision: 02-Oct-12 Document Number: 91000